



Launch Mission Execution Forecast

Mission: SpaceX Falcon 9 Starlink-L9

Issued: 6 Jul 2020 / 0830L (1230Z)

Valid: 8 Jul 2020 / 1154 – 1205L (1554 – 1605Z)



Forecast Discussion: A broad area of low pressure has formed in the Gulf of Mexico along a stalled front near the Florida panhandle, and will drift to the northeast over the next several days. The low's position will cause low-level southwest flow, draw in plentiful moisture, and keep the Atlantic ridge to our south. This will continue the pattern of afternoon/evening thunderstorms along the East Central Florida coast over the next several days. On Wednesday, the low's center will be well to our north near the Carolina coast, maintaining the prevailing offshore flow. This, combined with slightly drier air aloft and marginal instability, will likely keep shower and storm activity after the launch window at the Spaceport. However, given the prevailing offshore flow, increased convergence along the coast as the sea breeze develops could enhance cumulus cloud formation in the late morning. Therefore, the primary concern for the launch window is the Cumulus Cloud Rule.

For the backup day, the overall weather pattern will be very similar, with the ridge axis remaining to the south and continued low-level offshore flow. Thus, the primary concern will again be the Cumulus Cloud Rule.

Launch Day	Probability of Violating Weather Constraints							
	30%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions					Additional Risk Criteria		
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	85°F / 70%	Cumulus	Scattered	3,000	8,000	Booster Recovery Weather:	Moderate
	Liftoff Winds (200’):	240° 10 - 15 mph	Cirrostratus	Scattered	25,000	28,000	Solar Activity:	Low
24-Hour Delay	Probability of Violating Weather Constraints							
	30%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions					Additional Risk Criteria		
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	84°F / 75%	Cumulus	Scattered	3,000	8,000	Booster Recovery Weather:	Moderate
	Liftoff Winds (200’):	250° 10 - 15 mph	Cirrostratus	Scattered	25,000	28,000	Solar Activity:	Low
Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.								
Next Forecast Will Be Issued			7 Jul 2020					